

## CLAIMS

1. An engine power transmission device, comprising:

an engine (1) which is controlled by a throttle (5);

a torque converter (2) which transmits a power of the engine

5 (1) to a load device;

a clutch (10), which is provided between the engine (1) and the torque converter (2), and which is capable of controlling a transmission torque transmitted thereby;

a throttle actuation device (6) which actuates the throttle  
10 (5);

an engine rotational speed detector (14) which detects a rotational speed of the engine (1);

a clutch actuation device (13) which actuates the clutch (10) and controls the transmission torque; and

15 a controller (15) which, in response to the engine rotational speed detector (14), commands the clutch actuation device (13) so as to control the transmission torque transmitted by the clutch (10) according to the engine rotational speed.

20 2. The engine power transmission device according to Claim 1, further comprising a throttle opening amount detector (16) which detects an opening amount of the throttle (5), wherein

the controller, in response to the engine rotational speed detector (14) and the throttle opening amount detector (16), commands the clutch actuation device (13) so as to control the  
25 transmission torque transmitted by the clutch (10) according to the engine rotational speed and the throttle opening amount.

3. The engine power transmission device according to Claim 1 or Claim 2, wherein the clutch (10) is actuated so that a torque transmission ratio in a lower rotational speed region becomes smaller than that in a higher rotational speed region.

5           4. The engine power transmission device according to Claim 3, wherein, in the lower rotational speed region, the clutch (10) is actuated so that the torque transmission ratio increases along with an increase in the engine rotational speed.

10           5. The engine power transmission device according to Claim 4, wherein, in the higher rotational speed region, the clutch (10) is actuated so that the torque transmission ratio becomes constant.

          6. The engine power transmission device according to Claim 4, wherein, in the higher rotational speed region, the clutch (10) is actuated so that the torque transmission ratio becomes 100%.

15           7. The engine power transmission device according to Claim 2, wherein the clutch (10) is actuated so that a torque transmission ratio in a lower rotational speed region becomes smaller than that in a higher rotational speed region; and

20           the clutch (10) is actuated so that, in the lower rotational speed region, the torque transmission ratio increases along with an increase in the engine rotational speed, and so that the torque transmission ratio decreases along with an increase in the throttle opening amount.

25           8. The engine power transmission device according to Claim 7,  
          wherein an upper limit rotational speed in the lower rotational

speed region is controlled according to the throttle opening amount, so that the upper limit rotational speed in the lower rotational speed region is increased as the throttle opening amount increases.

9. The engine power transmission according to Claim 7 or Claim 8, wherein the clutch (10) is actuated so that, in the higher rotational speed region, the torque transmission ratio becomes constant.

10. An engine power transmission method for transmitting a power of an engine (1) to a torque converter (2) via a clutch (10) which is capable of controlling a torque transmission ratio, comprising the steps of:

controlling the engine (1) in response to a throttle (5); and actuating the clutch (10) so as to control a transmission torque transmitted thereby according to an engine rotational speed.

11. The engine power transmission method according to Claim 10, wherein, in the step of actuating the clutch (10), the clutch (10) is actuated so that the torque transmission ratio in a lower rotational speed region becomes smaller than that in a higher rotational speed region.

12. The engine power transmission method according to Claim 11, wherein, in the lower rotational speed region, the clutch (10) is actuated so that the torque transmission ratio increases along with an increase in the engine rotational speed.